

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 89-170
NPDES PERMIT No. CA0037648
WASTE DISCHARGE REQUIREMENTS FOR:

CENTRAL CONTRA COSTA SANITARY DISTRICT
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board,
San Francisco Bay Region (hereinafter called the Board) finds that:

1. Central Contra Costa Sanitary District (hereinafter called the discharger), submitted a Report of Waste Discharge dated July 5, 1989 for reissuance of NPDES Permit No. CA0037648.
2. The discharger operates an activated sludge plant which has a plant capacity of 45 million gallons per day (MGD) average dry weather flow (ADWF). This plant treats domestic and industrial wastewater from Central Contra Costa County. The discharger presently discharges an annual average flow of 35.2 MGD. Treatment consists of primary sedimentation, activated sludge secondary treatment, secondary clarification, disinfection and dechlorination. Waste activated sludge (WAS) is routed to the dissolved air flotation thickeners and thickened.
3. Lime is added to a portion of the primary influent to aid in dewatering. The combined primary and waste activated sludges are dewatered by centrifuge and incinerated by multiple-hearth furnaces. All incinerator ash is disposed of in a permitted landfill disposal site. The treated wastewater is discharged into Suisun Bay, a water of the State and United States, through a submerged diffuser about 1600 feet offshore at a depth of 24 feet below mean lower low water. Latitude: 38 deg., 2 min., 44 sec.; longitude: 122 deg., 5 min., 55 sec.
4. The discharger has developed a series of wet weather projects to reduce wet weather overflows, and to meet current and future regulations. Plant expansion for dry weather capacity is not expected until the 1997-2000 year time frame. TABLE A illustrates the current capacity for the influent pumps, secondary treatment facility, outfall, and holding basins. Presently, more water can be pumped into the plant than can be discharged into Suisun Bay. The surplus water has routinely been stored in holding basins until the influent flow decreases to the point where the water can be routed through the plant.

TABLE A

	<u>Current Status</u>	<u>Proposed Improvements</u>
Influent Pump Station Capacity	180 MGD	300 MGD
Secondary Capacity	80 to 90 MGD	140 MGD
Outfall Capacity	90 MGD	140 MGD
Holding Basin Capacity	170 MG	170 MG

5. Wet weather flow in excess of the basin capacity is currently discharged at Discharge Point No. 002 from near the northwest corner of Holding Basin "C" to Walnut Creek via Pacheco Slough. The discharge may consist of chlorinated influent raw sewage, primary effluent, secondary effluent or a combination of any of the three. In most cases the discharge would be primary effluent. During the hydraulic retention time of several days, additional biological and physical treatment occurs in the three basin system.
6. The discharger is currently pursuing a project to relocate the existing Discharge Point No. 002 from near the northwest corner of Holding Basin "C" to a point near the northeast corner of Holding Basin "B" (FIGURE 1). Wet weather flow may be discharged from the relocated discharge point providing that the discharger notify the Regional Water Quality Board prior to the time of discharge. The excess wet weather flow would be discharged directly into Walnut Creek.
7. The basins that were once used to hold and dewater alum sludge produced by the discharger were removed from service in July 1987. These basins are proposed for interim storage of ash, grit, and dewatered sewage sludge produced by the discharger. The unlikely event of a break down in the present CCWD alum sludge disposal process might cause the short-term use of one of the ponds at CCCSD for drying alum sludge.
8. The discharger implemented and is monitoring an EPA approved pretreatment program in accordance with the Regional Board Order No. 84-60.

9. The discharge is presently governed by Waste Discharge Requirements, Order No. 84-77, which allow discharge into Suisun Bay.
10. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for Suisun Bay and contiguous waters.
11. The beneficial uses of Suisun Bay and contiguous water bodies include:
 - a. Water Contact and Non-Contact Water Recreation
 - b. Wildlife Habitat
 - c. Preservation of Rare and Endangered Species
 - d. Fish Migration and Spawning
 - e. Industrial Service Supply
 - f. Navigation
 - g. Commercial and Sport Fishing
 - h. Estuarine Habitat
12. An Operation and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities and recommended operation strategies, process control monitoring and maintenance activities. In order to remain a useful and relevant document, this manual should be kept updated to reflect significant changes in plant facilities or activities.
13. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter three (commencing with Section 21100) of Division 13 of the Public Resources Code (California Environmental Quality Act) pursuant to Section 13389 of the California Water Code.
14. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity for a public hearing and the opportunity to submit their written views and recommendations.
15. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

A. Discharge Prohibitions

1. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited.
2. The discharge of average dry weather flows greater than 45 million gallons per day is prohibited. Average dry weather flow shall be determined over three consecutive dry weather months each year.
3. Discharge of wastewater at any point where it does not receive a minimum initial dilution of 10:1 is prohibited.

B. Effluent limitations

1. Effluent discharged shall not exceed the following limits:

Constituent	Units	Monthly Average	Weekly Average	Daily Maximum	Instan- taneous Maximum
a. Carbonaceous Biochemical Oxygen Demand	mg/l	25	40	50	---
b. Total Suspended Solids	mg/l	30	45	60	---
c. Settleable Matter	ml/l-hr	0.1	---	---	0.2
d. Oil and Grease	mg/l	10	---	20	---
e. Total Chlorine Residual (1)	mg/l	---	---	---	0.0

(1) Requirement defined as below the limit of detection in standard test methods.

2. The arithmetic mean of the carbonaceous biochemical oxygen demand (five-day, 20 degrees centigrade) and suspended solids values, by weight for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).
3. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.
4. The moving median value for the Most Probable Number (MPN) of total coliform bacteria in any five (5) consecutive effluent samples shall not exceed 240 MPN per 100 milliliters (240 MPN/100 ml). Any single sample shall not exceed 10,000 MPN/100 ml.

5. The survival of test organisms acceptable to the Board in 96-hour bioassays of the effluent shall be a 90 percentile value of not less than 50 percent survival, based on the ten most recent consecutive samples.

6. Representative samples of the effluent shall not exceed the following limits in micrograms per liter (ug/l): (1)

<u>Constituent</u>	<u>Daily Average</u> (2)
a. Arsenic	200
b. Cadmium	30
c. Chromium(VI) (3)	110
d. Copper	200
e. Lead	56
f. Mercury	1
g. Nickel	71
h. Silver	23
i. Zinc	580
j. Cyanide	25
k. Phenols	500
l. PAHs (4)	150

(1) These limits are intended to be achieved through secondary treatment and applicable pretreatment programs.

(2) Average of all flow-weighted samples collected over a 24-hour period.

(3) The discharger may at its option meet this limit as total chromium.

(4) Polynuclear Aromatic Hydrocarbons (PAHs). This limit applies to the summation of the detected levels of the individual constituent PAHs as identified by EPA Method 625 (i.e. Total PAHs). If a discharge exceeds this limit, the concentrations of individual constituents shall be reported.

C. Land Disposal Requirements

1. The handling, treatment and temporary storage of alum sludge, ash, grit, and dewatered sewage sludge shall not cause any of these materials to be in any position where they are, or can be carried from Land Disposal Site "L-1" and "L-2" (see Attachment A) and deposited in waters of the State.

2. Land Disposal Site "L-1" and "L-2" shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage of the materials from the disposal site.
3. The disposal of Group 1 material as defined in the California Administrative Code, Article 3, Section 2520, in Land Disposal Site "L-1" and "L-2" is prohibited.

D. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
 - a. Dissolved Oxygen 7.0 mg/l, minimum.
The median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation. When natural factors cause lesser concentrations than those specified above, then the discharge shall not cause further reduction in the ambient concentration of dissolved oxygen.
 - b. Dissolved Sulfide 0.1 mg/l, maximum.
 - c. pH Variation from normal ambient pH by more than 0.5 pH units.
 - d. Un-ionized Ammonia 0.025 mg/l as N, annual median; 0.16 mg/l as N, maximum.
3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required

by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

E. Provisions

1. Requirements prescribed by this order supersede the requirements prescribed by Order No. 84-77. Order No. 84-77 is hereby rescinded.
2. Where concentration limitations in mg/l or ug/l are contained in this Permit, the following Mass Emission Limitations shall also apply:

$$(\text{Mass Emission Limit in lbs/day}) = (\text{Concentration Limit in mg/l}) \times (\text{Actual Flow in million gallons per day averaged over the time interval to which the limit applies}).$$
3. The discharger shall comply with all sections of this Order immediately upon adoption.
4. The discharger shall comply with the attached Self-Monitoring Program. The Board's Executive Officer may make minor amendments to this Self-Monitoring Program pursuant to federal regulations (40 CFR 122.63).
5. The discharger shall comply with all applicable items of the attached "Standard Provisions and Reporting Requirements" dated December, 1986 including section A.18 concerning bypasses.
6. Compliance with Effluent Limitation B.5 shall be determined using two test species in parallel, flow through bioassays which use undiluted effluent. One test specie shall be three spine stickleback, and the other shall be either rainbow trout or fathead minnow.
7. The discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year.
8. The discharger shall implement and enforce its approved pretreatment program in accordance with Board Order 84-60 and its amendments thereafter. The discharger's responsibilities include, but are not limited to:

- a. Enforcement of National Pretreatment Standards(eg., prohibited discharges, Categorical Standards, local limits) in accordance with 40 CFR 403.5 and Section 307(b) and (c) of the Clean Water Act.
 - b. Implementation of the pretreatment program in accordance with the legal authorities, policies, procedures, and financial provisions described in the General Pretreatment Regulations (40 CFR 403) and its approved pretreatment program.
 - c. Submission of annual and quarterly reports to EPA and the State as described in Board Order 84-60 and its amendments thereafter.
9.
 - a. Sludge use/disposal practices must be in compliance with all current federal and state regulations. Under current EPA regulations, application of sludge to land is covered under 40 CFR 257.3-5 for Cadmium and PCB's.
 - b. Reopener: If an applicable "acceptable management practice or numerical limitation for pollutants in sewage sludge promulgated under Section 405 (d) (2) of the Clean Water Act, as amended by the Water Quality Act. of 1987, is more stringent than the sludge pollutant limit or acceptable management practice in this permit, or controls a pollutant not limited in this permit. This permit may be reopened to include requirements promulgated under Section 405 (d) (2). Regardless of whether or not the permit is modified, the discharger shall comply with the limitations by no later than the compliance deadline specified in the applicable regulations as required by Section 405 (d) (2) (D) of the Clean Water Act.
 - c. Notice of change in sludge disposal practice: The discharger shall give prior notice to the Executive Officer of changes planned in the discharger's sludge disposal practice.
10. The discharger shall review and update by December 31, annually, its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.
11. This Order expires November 15, 1994. The discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.
12. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective ten days after the date of its adoption provided the Regional

Administrator, Environmental Protection Agency, has no objections. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on November 15, 1989.

Attachments:

Standard Provisions and Reporting
Requirements, December 1986
Self-Monitoring Program
Resolution No. 74-10

STEVEN R. RITCHIE




Executive Officer

[File No. 2119.1008B]
[Originator/MJR]
[Reviewer/RJC]

LEGEND:

 Holding Basins

 Basin Flow Control Structure

 Chlorine Injection Point

1988/89
Wet Weather
Sampling Point

Walnut Creek

Holding Basin "A"
North

Holding Basin "B"

Holding Basin "C"

Holding Basin "A"
South

Existing Discharge
#002 to be abandoned

To Pacheco
Slough

AT & SF RR

Grayson Creek

HWY 4

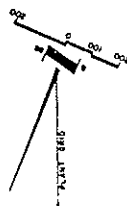
Travel Period
South

Travel Period
North

Filter Plant
Culvert

Filter Plant
Pond

Corona
Certa
Trough



CCCCSD

Holding Basins Plan

Martinez

Figure

1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

CENTRAL CONTRA COSTA SANITARY DISTRICT

CONTRA COSTA COUNTY

NPDES PERMIT NO. CA0037648

ORDER NO. 89 -170

CONSISTS OF

PART A, dated December 1986

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT AND INTAKE

<u>Station</u>	<u>Description</u>
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D)
E-001-D	At any point in the disinfection facilities for Waste E-001 at which adequate contact with the disinfectant is assured.
E-001-S	At any point in the disposal facilities following dechlorination.

C. RECEIVING WATERS

<u>Station</u>	<u>Description</u>
C-1	At a point in Suisun Bay, located within 25 feet of the point of discharge from the outfall diffuser section.
C-2	At a point in Suisun Bay, located 100 feet generally west from the offshore end of the diffuser section of the outfall line.
C-3	At a point in Suisun Bay, located 100 feet generally north from the offshore end of the diffuser section of the outfall line.

- C-4 At a point in Suisun Bay, located 100 feet generally east from the diffuser section of the outfall line.
- C-5 At a point in Suisun Bay, located 100 feet generally south from the shoreward end of the diffuser section of the outfall line.
- C-R At a point in Suisun Bay, located 1000 feet up current from the diffuser section of the outfall line in waters of the same depth (-5 feet) as station C-1 and not located in the dredged channel.

D. MISCELLANEOUS DISCHARGE

<u>Station</u>	<u>Description</u>
M-002 (current)	Wet weather flow in excess of basin capacity is discharged from near the northwest corner of Basin "C" to Walnut Creek via Pacheco Slough. In most cases discharge is primary effluent.
M-002 (proposed)	Wet weather flow in excess of basin capacity is discharged from a point near the northwest corner of Holding Basin "B" directly into Walnut Creek. In most cases discharge is primary effluent.
M-003	Emergency bypass to Grayson Creek. This would occur should mechanical problems result in reduction of influent pumping capacity below influent flow. Discharge from this location is raw sewage except as may be diluted by peak wet weather flows.
M-004	Alum sludge, ash, grit and dewatered sewage sludge from Contra Costa Water district is deposited into specific holding basins only if no other storage or disposal option is available. These basins are for temporary storage; they are not in use at the present time.
M-005	This discharge consists of a bypass structure from the first of these holding basins through a levee to Grayson Creek. Discharge from this location is primary effluent.

E. LAND OBSERVATIONS

<u>Station</u>	<u>Description</u>
P-1 through P-'n'	Located along the periphery of the waste treatment facilities at equidistant intervals, not to exceed 200 feet. (A sketch showing the locations of these stations will accompany each report).
L-1 through L-'n'	Located along the perimeter levee of lagoons and drying beds at equidistant intervals not to exceed 300 feet. (A sketch showing the locations of these stations will accompany each report).

F. OVERFLOWS AND BYPASSES

<u>Station</u>	<u>Description</u>
OV-1 through OV-'n'	At points in the collection system including manholes, pump stations, or any other location where overflows and bypasses occur.

NOTES: A map and description of each known overflow or bypass location shall accompany the Self Monitoring Report for each month.

II. MISCELLANEOUS REPORTING

1. The monthly average percent removal of suspended solids and carbonaceous biochemical oxygen demand shall be calculated using influent and effluent mass emissions, rather than concentrations.
2. A wet weather improvement project allowing the routing of up to 200 MGD through the primary sedimentation tanks has been completed since the last permit was issued.

III. SCHEDULE OF SAMPLING, MEASUREMENTS, AND ANALYSIS

- A. The schedule of sampling, measurements and analysis shall be that given as TABLE I and TABLE I FOOTNOTES.
- B. Paragraph C.5 of Part A is revised to read:
Average values for daily, weekly, and monthly values are obtained by taking the sum of all daily values divided by

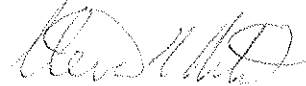
the number of all daily values measured during the specified period.

IV. REPORTING REQUIREMENTS

- A. Self-Monitoring Reports for each calendar month shall be submitted monthly, to be received no later than the 15th day of the following month. The required contents of these reports are specified in section G.4 of Part A.
- B. An annual report covering the previous calendar year shall be submitted to the Regional Board by January 30 of each year. The required contents of the annual report are specified in section G.5 of Part A.
- C. Any overflow, bypass or other significant non-compliance incident that may endanger health or the environment shall be reported according to sections G.1 and G.2 of Part A.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

- 1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board No. 89-170.
- 2. Is effective on the date shown below.
- 3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.



STEVEN R. RITCHIE

Executive Officer

Effective Date 11/15/89

Attachment: Table I with footnotes

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS (1, 4, 7)

Sampling Station	A-001	E-001	E-001D., S.	M-002	All CSta.	L	O	P	Misc
TYPE OF SAMPLE	C-24/G	C-24 G	Cont	C-24 G	C-24 G	0	0	0	
Flow Rate (mgd)	D	D							
BOD, 5-day, 20°C, or COB (mg/l & kg/day)	5/W	5/W			D(1)				
Chlorine Residual & Dosage (mg/l & kg/day) (2)			2H or Cont	2H	D(1)				
Settleable Matter (ml/1-hr. & cu. ft./day)			D		D(1)				
Total Suspended Matter (mg/l & kg/day)	5/W	5/W			D(1)				
Oil and Grease (mg/l & kg/day) (3)	2W	2W			D(1)				
Coliform (Total or Fecal) (MPN/100 ml) per req't			5/W		M				
Fish Tox'y 96-hr. (5) % Surv'l in undiluted waste				2/M					
Ammonia Nitrogen (mg/l & kg/day) (8)		W			M				
Nitrate Nitrogen (mg/l & kg/day) (8)		M							
Nitrite Nitrogen (mg/l & kg/day) (8)		M							
Total Organic Nitrogen (mg/l & kg/day) (8)		M							
Total Phosphate (mg/l & kg/day) (8)		M							
Turbidity (Jackson Turbidity Units)		W			M				
pH (units) (2)			D		M				
Dissolved Oxygen (mg/l and % Saturation)			D		M				
Temperature (°C)			D		M				
Apparent Color (color units)									
Secchi Disc (inches)			-						
Sulfides (if DO<5.0 mg/l) Total & Dissolved (mg/l)			D						
Arsenic (mg/l & kg/day) (6)		W							
Cadmium (mg/l & kg/day) (6)		W							
Chromium, Total (mg/l & kg/day) (6)		W							
Copper (mg/l & kg/day) (6)		W							
Cyanide (mg/l & kg/day) (6)		W							
Silver (mg/l & kg/day) (6)		W							
Lead (mg/l & kg/day) (6)		W							

TABLE 1 (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS (1,4,7)

Sampling Station	A-001	E-001	E-001D	'S	M-002	All C Sta	L	O	P	Misc
TYPE OF SAMPLE	C-24	G	C-24	G	Cont	C-24	G	C-24	G	
Mercury (mg/l & kg/day) (6)			W							O
Nickel (mg/l & kg/day) (6)			W							
Selenium (mg/l & kg/day) (6)			W							
Zinc (mg/l & kg/day) (6)			W							
Phenolic Compounds (mg/l & kg/day) (6)			M							
Polynuclear Aromatic (6)										
Hydrocarbons (mg/l & kg/day)			M							
All Applicable Standard Observations		D				M	M	E	2/W	
Unionized Ammonia (mg/l as N)			W			M				
Dewatered Sludge (9)										D

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours
(used when discharge does not
continue for 24-hour period)
Cont = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater stations

FREQUENCY OF SAMPLING

E = each occurrence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

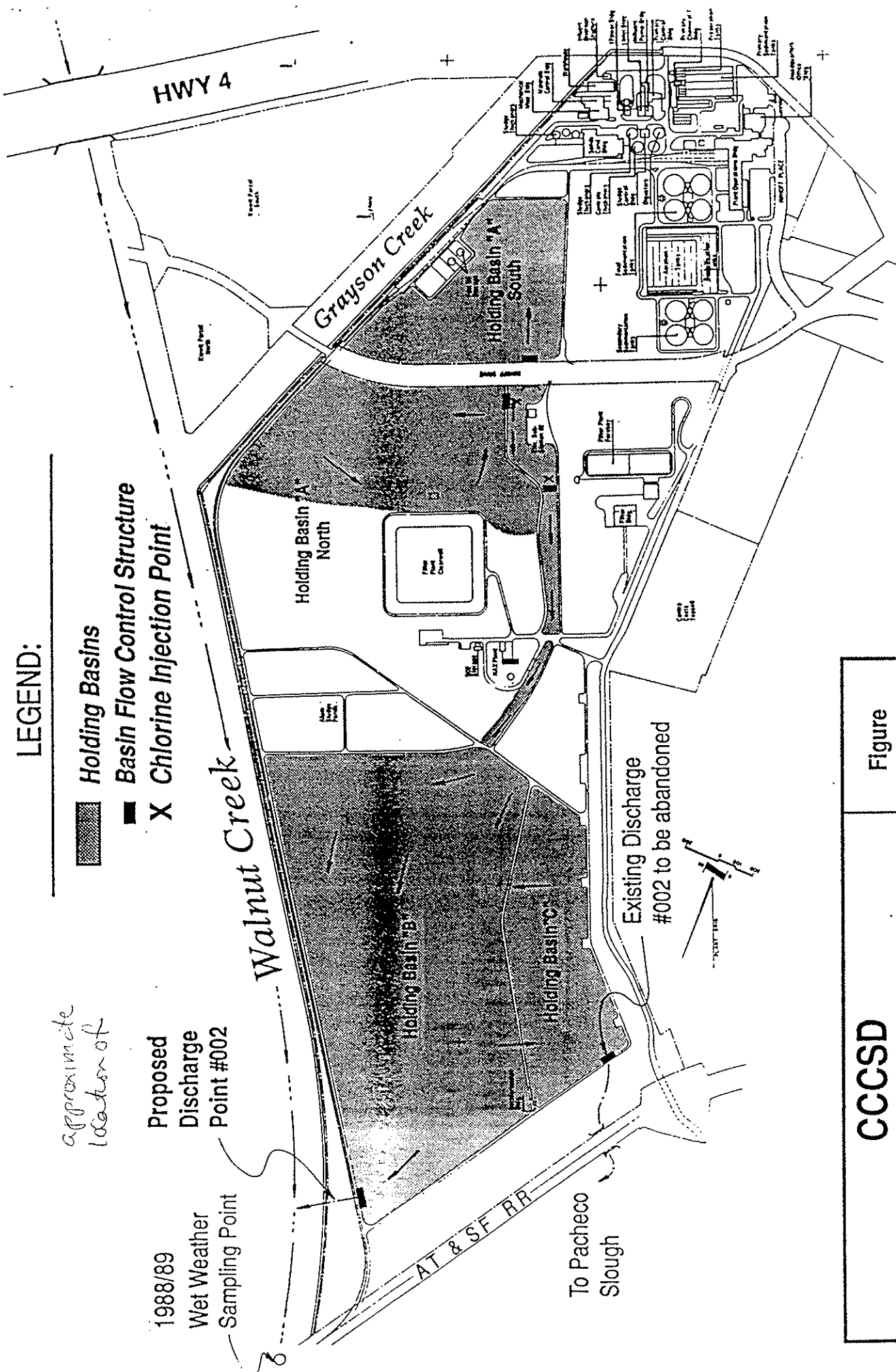
2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and
once in September
Q = quarterly, once in
March, June, Sept.
and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

TABLE I FOOTNOTES

- (1) During any time when bypassing occurs from any treatment unit(s) in the treatment facilities the monitoring program for effluent discharged from the treatment plant shall include the following in addition to the above schedule for sampling, measurement and analysis:
 - a. Wet weather overflows in excess of the storage basin capacity which result in discharges to either Pacheco Slough or Walnut Creek shall result in the following sampling schedule for the duration of the discharges: Daily grab samples 500 feet upstream and 500 feet downstream from the discharge point for Dissolved Oxygen, pH, Carbonaceous Biochemical Oxygen Demand (CBOD), Suspended Solids (S.S.), and Total Coliform; 24-hour Composite samples of the effluent from the discharge point for CBOD and S.S.; hourly composite samples of the effluent from the discharge point for CBOD and S.S. when the duration of the discharge is less than 24 hours.
 - b. Grab samples at least daily for the duration of the bypass event for Total Coliform, Settleable Matter, Oil and Grease, and Chlorine Residual (continuous or every two hours).
 - c. Continuous monitoring of bypassed flow.
- (2) Chlorine Residual concentrations and pH shall be monitored both prior to and following dechlorination.
- (3) Oil and Grease sampling shall consist of three grab samples taken at equal intervals during the sampling day, with each grab sample being collected in a glass container and analyzed separately. Results for station E-001 shall be expressed as a weighted average of the three values, based upon the instantaneous flow rates occurring at the time of each grab sample. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.
- (4) Grab samples shall be taken on day(s) of composite sampling.
- (5) Fish Toxicity shall be determined using parallel, 96-hour, flow through bioassays using 24-hour composite samples representative of the discharged effluent. One specie shall be three-spined stickleback, and the other shall be either rainbow trout or fathead minnow. Effluent used for fish bioassays must be undiluted, dechlorinated effluent.

- (6) If any of these samples are found in excess of the permit limits, then sampling and analysis for the constituents which exceed the permit limits shall be conducted daily until compliance is demonstrated in two successive samples.
- (7) Chlorine residual analyzers shall be calibrated against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, grab samples shall be taken every 30 minutes until compliance is achieved.
- (8) These parameters shall be tested for on the same composite sample used for the bioassay.
- (9) Daily records shall be kept of the quantity and solids content of the dewatered sludge disposed of and the location of disposal.



CCCSD
Holding Basins Plan
 Martinez

Figure
1